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**United States Patent** [19]**Koo et al.**[11] **Patent Number:** **6,023,251**[45] **Date of Patent:** **Feb. 8, 2000**[54] **CERAMIC CHIP ANTENNA**

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[57] **ABSTRACT**[21] Appl. No.: **09/175,700**[22] Filed: **Oct. 20, 1998**[30] **Foreign Application Priority Data**

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A ceramic chip antenna is provided which exhibits a small size and is capable of utilizing a plurality of bands. The ceramic chip antenna comprises a dielectric chip base, a plurality of main conductors which is spirally wound within said dielectric chip base, and a plurality of sub conductors which is spirally wound within each of said main conductors. The sub conductors are respectively separated. One ends of said main conductors are led to an outside surface of said dielectric base to form feeding terminal for applying a signal to said main conductors and one ends of said sub conductors are led to an outside surface of said dielectric base to form feeding terminal for applying a signal to said sub conductors.

**14 Claims, 12 Drawing Sheets**